AMENDMENT OF SOLICITAT	TON/MODIFICATION	OE CONTRAC	т	1. CONTRACT II	D CODE	PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO.			,	ITION/BUIDCHASE	DEO NO	* PROJECT NO (Karakashi)
PR-CI-04-10462/0001	3. EFFECTIVE D 07/08/04	DATE	4. REQUISITION/PURCHASE REQ. NO. 5. PR-CI-04-10462			5. PROJECT NO. (If applicable)
6. ISSUED BY	CODE		7. ADMINISTERED BY (If other than item 6) CODE			
Environmental Protection Agency			1			
Contracts Management Division			Not Applicable.			
26 W. Martin Luther King Drive						
Cincinnati, OH 45268						
8. NAME AND ADDRESS OF CONTRACTOR (No., stre	pet county State and ZIP Code		<u> </u>	( o 9A A	AMENDMENT OF SO	LICITATION NO.
	,,,			(V) 9A. F		
To All Offerors/Bidders.				PR-CI-04-10462		
					DATED (SEE ITEM 11)	,
					16/04	
				10A.	MODIFICATION (	OF CONTRACT/ORDER
T-				10B.	DATED (SEE ITEM	13)
•	FACILITY CODE	DDI IES TO AME	NDMENTO	OF SOLICITAT	TIONS	
	1. THIS ITEM ONLY A					
[X] The above numbered solicitation is amended a		•				extended.
Offers must acknowledge receipt of this amendment p	•				-	
(a) By completing Items 8 and 15, and returning <u>1</u> submitted; or (c) By separate letter or telegram which						
MENT TO BE RECEIVED AT THE PLACE DESIGNATE						
N REJECTION OF YOUR OFFER. If by virtue of this ar						
etter, provided each telegram or letter makes reference	ce to the solicitation and this	amendment, and is re	eceived prior t	to the opening hou	r and date specified.	
2. ACCOUNTING AND APPROPRIATION DATA (If requ	uired)					
	THIS ITEM APPLIES ON				,	
(/) A THIS CHANGE ORDER IS ISSUED PI						
B. THE ABOVE NUMBERED CONTRAC appropriation date, etc.) SET FORTH IN IT				HANGES (such as ch	nanges in paying office,	
c. THIS SUPPLEMENTAL AGREEMENT	T IS ENTERED INTO PURSUA	NT TO AUTHORITY O	OF:			
D. OTHER (Specify type of modification and at	uthority)					
E. IMPORTANT: Contractor [] is not, [] is r	required to sign this docume	nt and return	copies to the	issuing office.		
14. DESCRIPTION OF AMENDMENT/MODIFICATION	(Organized by UCF section headings	s, including solicitation/con	tract subject mat	tter where feasible.)		
				_		
The purpose of this amendment is	` '		-			
received in response to the solicita						
(3) extend the date by which propo	sals are due to 7/2	2/2004, 3:30 PI	VI local ti	me.		
See page 2.						
Except as provided herein, all terms and conditions of	of the document referenced in	ltem 9A or 10A, as he	eretofore cha	nged, remains uncl	hanged and in full fo	rce
and effect.    SA. NAME AND TITLE OF SIGNER (Type or print)			16A. NAN	ME AND TITLE OF A	CONTRACTING OFF	ICER (Type or print)
U. HANNE AND THE OF SIGNER (Type of print)			IOA. INAIV	TE AND THE OF	CONTRACTING OFF	CEN (Type or print)
			<b>KATHLE</b>	EN A. ROE		
15B. CONTRACTOR/OFFEROR	15C	DATE SIGNED		TED STATES OF A	MERICA	16C. DATE SIGNE
			/s/			
(Signature of person authorized to sign)	-		(-	Signature of Contracting	g Officer)	
NSN 7540-01-152-8070		30-	-105			STANDARD FORM 30 (REV 10-83
PREVIOUS EDITION UNUSABLE						Prescribed by GSA FAR (48 CFR) 52.243

PR-CI-04-10462/0001

#### AMENDMENTS TO THE SOLICITATION

- I. The following technical and other questions were received in response to the solicitation. Answers follow each question. The Statement of Work is revised as appropriate.
- 1. Paragraph F.3 allows invoicing upon completion of each delivery. However, the spacing of the deliverable is sometimes many months apart. Will the government consider interim progress payments?
  - A: The Consideration and Payment clause (B.1) allows for partial payment per line item upon receipt and acceptance of the deliverables listed in the schedule. In addition, the spacing of deliverables in terms of months is considered reasonable. Therefore, EPA does not intend to provide contract financing (interim or progress payments).
- 2. Do you anticipate travel other than for the delivery of the workshops will be required as part of this contract?
  - A: EPA does not anticipate contractor travel other than for the delivery of workshops, however, other travel will be considered if proposed.
- 3. SOW, paragraph 1.1. Where will the focus group meeting to conduct the critical review be held? How many stakeholders are required to attend this meeting? Will these individuals be paid by the contractor to attend?
  - A: The location shall be determined by the contractor. The contractor should anticipate up to 20 stakeholders, possibly more. The contractor shall provide stakeholder travel, teleconferences, and/or honorariums, if required. Such expenses should be considered in the offeror's proposed price.
- 4. SOW, paragraph 1.4. Will the contractor be responsible for recruiting the students, providing facilities, reproducing course materials for the delivery of the short courses? How many students do you expect for each course?
  - A: The contractor shall recruit up to 20 students, provide facilities, and reproduce course materials.
- 5. SOW, paragraphs 1.5 and 1.6. The reports described in these two paragraphs seem very similar. How do they differ?
  - A: Reports required by section 1.5 are critiques of each of the two short courses. The report required by section 1.6 is a critique of work done during Phase I. SOW section 1.6 is modified to show that the report required by this section covers all Phase I activities.
- 6. SOW, paragraph 1.8. How many hours of instruction do you anticipate these modules will be?

  A: Each of the modules should provide between 1 and 2 hours of instruction.

- 7. SOW, paragraphs 1.4 and 1.9. Should the contractor assume that the "short courses" will be less than 8 hours per course?
  - A: A one-day workshop is specified for the short courses.
- 8. SOW, paragraph 1.12. How many hours of instruction do you anticipate the retrofit option module to be?
  - A: The contractor shall develop a 1- to 2- hour module.
- 9. SOW, paragraph 1.14. Do you have any specific design guidance for the WBT materials such as the system specifications, interactivity level, incorporation of media, etc?
  - A: The offeror is expected to rely on its own expertise and past experience as guidance.
- 10. SOW, paragraphs 1.15 through 1.18 seem to be duplicate paragraphs.
  - A: SOW paragraphs 1.15 1.18 are deleted as they duplicated paragraphs 1-11 1-14.
- 11. SOW, paragraph 2.2. Does 3 hours refer to 3 instructional/classroom hours or a 3- hour college credit, which equates to nearly 50 classroom/contact hours?
  - A: It refers to a 3-hour college credit course.
- 12. SOW, paragraph 2.2. This paragraph states the curriculum must be a graduate level course. Does this imply that the contractor must be an accredited educational institution or that it must be ACE compliant?
  - A: The contractor must be accredited by an organization recognized by The American Council on Education (ACE), the Council on Higher Education Accreditation (CHEA), or the American Association of Collegiate Registrars and Admissions Officers (ACRAO). Credit for the 3-hour college credit course must be transferable according to the guidelines for transferring credit published by the three organizations cited above (ACE, CHEA, ACRAO).
- 13. SOW, paragraph 2.3. How many problems do you anticipate developing for each set? Do you anticipate these problems will be tabletop exercises, written individual problems, case studies, or another instructional method?
  - A: The contractor shall determine the number and type of problems.

II. The attachment entitled "STATEMENT OF WORK" has been modified. The text is as follows; changes are highlighted:

#### STATEMENT OF WORK

### **Development of Materials for the Education of Building Professionals**

# **Background**

EPA Office of Research and Development has established the National Homeland Security Research Center (NHSRC) to develop tools, techniques, technology, and guidance to minimize the impact of terrorist Chemical or Biological (CB) attack on buildings and to provide similar products for decontaminating buildings contaminated by CB attack. The ultimate usefulness of these products shall depend on how rapidly building owners, operators, and designers and decontamination professionals adopt and implement the tools, techniques, technologies and guidance developed by NHSRC.

The National Academy of Science (NAS) review of the NHSRC Safe Building program identified the need to inform practicing professionals about the products of the program's research and the need to include homeland security issues in the education of the next generation of professionals as important tasks for the Safe Building Program.

### **Objective**

The objective of this contract is to develop tools for building professionals, continuing education modules to inform practicing professionals, to use the modules to provide continuing education, to develop materials on safe building issues for use in graduate and undergraduate education, and to use these materials in teaching graduate and undergraduate students.

#### **Statement of Work**

The scope of work is divided into three tasks: Task 1 covers tasks related to continuing education requirements. Task 2 covers activities related to the education of graduate and undergraduate students. Task 2 activities shall be conducted in parallel with Task 1. Task 3 requires the preparation of a final report upon completion of all tasks.

# **Task 1: Continuing Education**

Because of the need to provide immediate educational material and the need to provide updated material that reflects the results of ongoing research, the continuing education portion of the project is divided into three phases. The objective of Phase I is to get the best current information available. The objective of Phase II is to update the educational materials with the interim results of the NHSRC Safe Building Program. The objective of Phase III is to update the educational materials with the final results of the Safe Building Program.

# Phase I. Develop, Conduct and Evaluate a One-Day Continuing Education Workshop

- 1.1 Conduct a critical review and assessment of the currently available guidance and tools available for building owners, operators, and designers for dealing with terrorist CB attacks. The review shall include analysis of the information on dealing with accidental releases of hazardous materials and information from the Department of Defense's programs on community response to accidental release of hazardous materials from military bases. This review shall include an assessment of the tools available to building professionals for assessing and identifying the vulnerabilities and risks of specific buildings. The strengths and weaknesses of the available guidance and tools shall be evaluated. The purpose of the review is to identify the important homeland security issues that building professionals must deal with to reduce vulnerability to CB attack. The review is not intended to produce new guidance or to develop a consensus guidance statement. The review shall include guidance offered for dealing with both indoor and outdoor attacks. The critical review shall include analysis of the impacts of the guidance on building operation, occupant safety, dispersion of attack agents, practicality of guidance, and consistency of guidance with fire codes, building codes, etc. The analysis shall include analysis of the types of building modifications necessary to implement the guidance. For example, what modifications are necessary to the control system for the heating, ventilating, and air conditioning (HVAC) system for various common commercial buildings. The contractor shall convene a small stakeholder group (up to 20) of building professionals, code developers, owners, and operators to participate in this critical review. The contractor shall determine the meeting location/arrangements and provide travel, teleponferences and/or honorarisms for **stakeholders, if required.** At the conclusion of the review the contractor shall prepare a report detailing the results of the review. This document shall allow building professionals to evaluate usefulness of various guidance document for particular situations.
- 1.2 The contractor shall prepare an outline for a one day workshop to inform building professionals, owners, and operators of the issues involved in dealing with possible CB attack. The objective of this workshop is to present the results of the critical review to building professionals, owners, and operators and code developers.

- 1.3 After the Project Officer has reviewed and approved the source outline, the contractor shall use the results of the critical review and the source outline to develop a one day continuing education workshop to inform building professionals about the need for dealing with potential terrorist CB attack, the options for dealing with the attack, and the various issues and interrelated factors that must be considered. The workshop shall be organized in modules with each module covering a specific topic. Possible module topics are: HVAC system modifications, filtration, control system modifications, building modifications, building code issues, response planning, and occupant training and drills. The contractor shall prepare written material for each module. The material shall be in lose leaf format that can be updated as new information becomes available.
- 1.4 The contractor shall use the modules developed in task 1.3 to conduct two short (one-day) courses. One short course shall be conducted at a site near the contractor, and one at a remote site. If possible, the short course at the remote site should be offered in conjunction with a major meeting of one of the professional associations representing building professionals, for example ASHRAE. For each short course the contractor shall obtain evaluation forms from the attendees. The pontractor shall repruit students (expect 10-20), provide facilities, and reproduce pourse materials.
- 1.5 After each short course, the contractor shall evaluate the usefulness and effectiveness of the educational materials prepare a report detailing the results of the evaluation. This report shall include recommendations for improving the materials.
- 1.6 A report on the results of Phase 1 of the program shall be prepared. The report shall contain recommendations for improving the materials and presentations. This report shall nover all Phase I activities.

### Phase II. Revise Modules and Develop New Modules

- 1.7 The contractor shall revise the workshop developed under Phase I to incorporate the results of NHSRC and the published results for research sponsored by other organizations. The revisions to the course materials shall include revision to the modules used in Phase I and the development of new modules.
- 1.8 The contractor shall develop a module (1 to 2 hours) based on the results of the NHSRC lessons learned from decontamination of anthrax contaminated buildings project shall be prepared. A second module (1 to 2 hours) based on the results of NHSRC research on use

- of filtration systems shall also be prepared. The EPA Project Officer will provide the contractor with the reports and tools from the lessons learned project and the filtration systems research for use in developing these new modules.
- 1.9 The contractor shall use the revised modules to present two short (one-day) courses during Phase II of the contract. One short course shall be conducted at a site near the contractor, and one at a remote site. If possible, the short course at the remote site should be offered in conjunction with a major meeting of one of the professional associations representing building professionals, for example ASHRAE. For each short course the contractor shall obtain evaluation forms from the attendees.
- 1.10 a. After each short course, the contractor shall evaluate the usefulness and effectiveness of the educational materials prepare a report detailing the results of the evaluation. This report shall include recommendations for improving the materials.
  - b. After all short courses have been completed the contractor shall evaluate the usefulness and effectiveness of the educational materials prepare a report detailing the results of the evaluation. This report shall include recommendations for improving the materials.

# Phase III. Finalize Materials and Development of Web Based Modules

- 1.11 The contractor shall revise the workshop developed under Phase II to incorporate the results of NHSRC and the published results for research sponsored by other organizations. The revisions to the course materials shall include revision to the modules used in Phase II and the development of new modules.
- 1.12 The contractor shall develop a new (1 to 2 hour) module based on the NHSRC sponsored research on retrofit options for building protection. The government shall provide the contractor with the results of the retrofit options research.
- 1.13 The contractor shall use the revised modules to present two short courses during Phase II of the contract. The short course procedures and short course evaluation procedures in subtasks 1.2 and 1.3 shall be followed.

1.14 The contractor shall develop a web based version of the workshop materials. The materials shall be developed so that they can be accessed using the World Wide Web on the internet or from a CDROM or DVDROM

Paragraphs 1.15 - 1.18 are deleted as they duplinate paragraphs 1-11 - 1-14.

# **Task 2: Undergraduate and Graduate Education**

- 2.1 The contractor shall review the graduate and undergraduate curricula in disciplines such as chemical engineering, architectural engineering, mechanical engineering, and civil engineering that are related to building design, construction, and operation and CB decontamination to determine appropriate curricula modifications for introducing CB protection and decontamination issues into the curricula. The contractor shall prepare a report based on the results of this review. A small expert panel may be convened to support this review.
- The contractor shall prepare a 3 predit hour interdisciplinary senior or graduate level course to introduce students to the issues involved in CB protection and decontamination. For this course the contractor shall develop lecture material and student handouts, homework problems, and examination problems. The course shall include topics such as HVAC system design and operation, economics, impact of CB attack, decontamination methods, analysis of buildings to determine risk of attack, and filtration systems. The contractor shall prepare an outline of the course for review by the project officer. After the Project Officer has approved the outline, the contractor shall develop the course.

  Credit for the 3 predit hour pollege predit pourse must be transferable appording to the guidelines for transferring predit published by the American Council on Education (ACE), the Council on Higher Education Appreditation (CHEA), and the American Association of Collegiate Registrars and Admissions Officers (ACRAO).
- 2.3 The contractor shall prepare instructional material for use in the education of graduate and undergraduates students. The instructional material shall consist of materials that can be used to supplement existing classes. Sets of problems on homeland security issues related to buildings and decontamination shall be designed for use as homework problems, including the following. The Contractor shall determine the number and type of problems.
  - a. Sets of problems on homeland security issues related to buildings and decontamination

- that can be used on college level examinations.
- b. A set of design problems suitable for use as senior design problems. One set of design problems shall address building design, construction, and operation issues to minimize the impact of CB attack. These design problems shall address issues such as economics, impact on normal building operation, technical feasibility, impact on indoor air quality, impact on energy use, and benefits not related to CB protection.
- c. A second set of design problems shall address issues related to the design, construction, and operation of decontamination system for large buildings. These design problems shall be designed to address issues such as safety, economics, disposal of wastes generated by decontamination, and transport of decontamination materials to the site.
- d. Materials that can be used by professors to introduce their students to homeland security issues related to buildings and decontamination over the course of one to four lectures.
- 2.4 The contractor shall review the design tools that are used by professionals and that are taught in universities and recommend modifications to the tools that shall make it possible to better address homeland security issues in the building design process.

# **Task 3: Final Report**

3.0 Upon completion of all tasks the contractor shall prepare a final report that includes an analysis of the impact of the continuing education tasks, the usefulness of the graduate and undergraduate education tasks, and recommendations for improving continuing education and graduate and undergraduate education to ensure that building professionals, owners, and operators are fully informed of the issues involved in CB protection and decontamination.

# **Delivery Schedule**

All deliverables shall be timely, complete, grammatically correct, and in the specified format. Unless otherwise specified, deliverables shall be provided to the Project Officer in electronic format and one hard copy. The deliverables and schedule for delivering them are:

Task 1: Continuing Education:

- A. Report on Critical Review of Guidance and tools 4 months after start of contract. (Subtask 1.1)
- B. Outline of first workshop series 5 months after start of contract. (Subtask 1.2)
- C. Course materials for first workshop series 7 months after start of contract. (Subtask 1.3)
- D. Report on results for Phase I efforts 13 months after start of contract. (Subtask 1.6)
- E. Revised workshop modules 14 months after start of contract. (Subtask 1.7)
- F. New modules based on decontamination lessons learned and filtration systems research by NHSRC 16 months after start of contract. (Subtask 1.8)
- G. Report on effectiveness of Phase II workshops 25 months after start of contract. (Subtask 1.10)
- H. Revised modules for use in Phase III, 28 months after start of contract. (Subtask 1.11)
- I. World wide web based instructional materials 30 months after start of contract. (Subtask 1.14)
- J. Final report on effectiveness of workshops 36 months after start of contract. (Subtask 1.10b)

# Task 2: Graduate and Undergraduate Education:

- A. Report on the results of graduate and undergraduate curricula review 9 months after start of contract. (Subtask 2.1)
- B. Outline of 3 hour course 9 months after start of contract. (Subtask 2.2)
- C. Report containing all course materials for the 3 hour course (developed under subtask 2.2) 24 months after start of contract
- D. Homework problems for existing classes 12 months after start of contract. (Subtask 2.3a)
- E. Senior design problems for existing classes (developed under subtask 2.3b) 24 months after start of contract.
- F. Report on modifications needed to existing building design tools 36 months after start of contract (subtask 2.4)

# Task 3: Final report on entire contract 38 months after start of contract.

Progress Reports: The contractor shall provide quarterly progress reports detailing the progress made during the reporting period. The quarterly report shall be due the 15<sup>th</sup> of the month following the end each quarter.